

MELTING POINTS MISTAKES

At Heat Haven Lab, melting metal is the name of game. Four Bunsen burners are set at 4 different temperatures. Problem is the burners were set using Celsius and the melting points are in Fahrenheit. Match the correct burner with the metal it will melt.



$$T_{(^{\circ}\text{F})} = T_{(^{\circ}\text{C})} \times 9/5 + 32$$

$$T_{(^{\circ}\text{C})} = (T_{(^{\circ}\text{F})} - 32) \times 5/9$$

Match the correct melting temperature with the correct burner.

burner	Temperature ($^{\circ}\text{C}$)	metal it melts
1	327.5 $^{\circ}$	
2	1084 $^{\circ}$	
3	961 $^{\circ}$	
4	232 $^{\circ}$	



Melting temperature in ($^{\circ}\text{F}$)

Zinc 787 $^{\circ}$

Lead 621 $^{\circ}$

Tin 449.4 $^{\circ}$

Selenium 423 $^{\circ}$

Copper 1983 $^{\circ}$

Silver 1761 $^{\circ}$

Aluminum 1220 $^{\circ}$

Platinum 3220 $^{\circ}$

ABSURD MATH Magazine

*Algebra: Letters and Numbers
Formula*

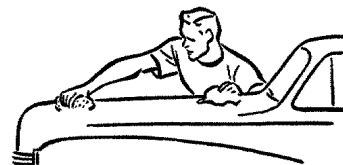
OUR FRIENDS THE FORMULAS

Issue 4 Volume 1

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THE CLASSIC CAR SHOW COST

Ronaldo wants to take his 1932 Ford to the state classic car show. Last year, he drove three and a half hours at an average speed of 52 mph to get there. This year he wants to get there in about 3 hours. What should his average speed be?



Use these formulas

$$d = rt$$

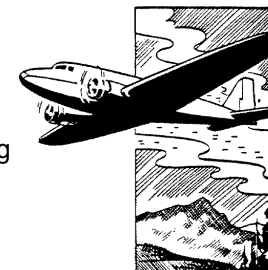
$$\frac{d}{r} = t$$

$$\frac{d}{t} = r$$

Ronaldo's car gets 16 mpg and gasoline costs \$2.35 per gallon.

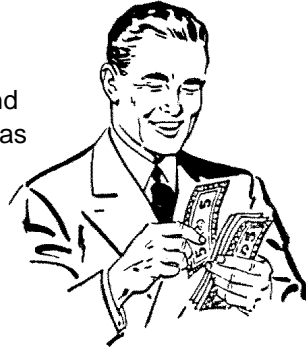
How much will it cost him to travel there and back?

An airplane travels at 300 mph. It's destination is 1200 miles away. It will make 3 stops along the way. Each stop will take 40 minutes. How long will it take to get to its destination including the 3 stops?



LETTING MONEY WORK FOR YOU

Mr. Smoothy has made some shrewd investments. Now, he wants to count his money. Use the simple interest formula and some addition to find the total money he has earned on his investments.



The simple interest formula can be used to calculate interest earned and interest paid.

$$I = prt$$

I = interest,
 p = principal,
 r = rate,
 and t = time in years

Mr. Smooth has 3 different investment at 3 different rates and for different lengths of time. Determine the total interest made in each and then find the grand total of the money he made.

SLOW GROWTH FUND:

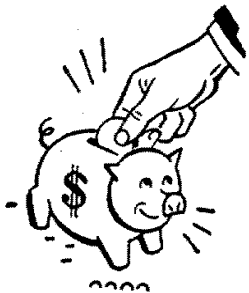
Rate = 3.5%
 Principal = \$50,000
 Time = 10 years

FAST FUND:

Rate = 5.5%
 Principal = \$15,000
 Time = 9 months

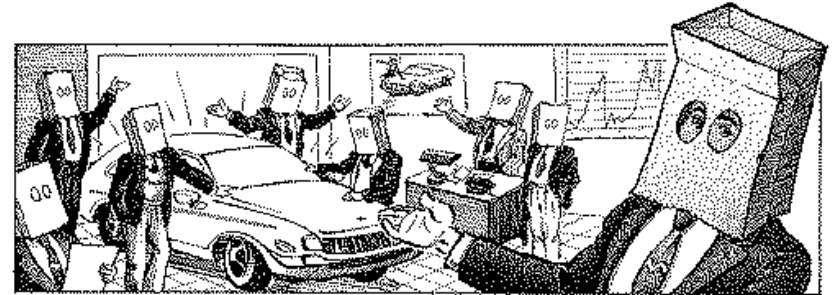
INTERNATIONAL FUND:

Rate = 2%
 Principal = \$19,000
 Time = 5 years



COMMISSION SALES

Unknown Car Sales is having a big promotion. They have guaranteed each salesperson 11% commission for their total sale plus a bonus of \$1000 if their total sales exceed \$30,000. Top salesperson wins a set of steak knives.



Wage = Commission rate x (total sales) + bonus

$$w = sr + b$$

Find the total wage of the two top salespersons to find out who wins the steak knives.

Unknown 1: sold a truck for \$45,490, a car for \$27,990 and an SUV for \$32,500.

Unknown 2: sold 2 trucks one for \$48,560 and the other for \$47,890.

The cooks and servers are also performers at the Polynesian Palace. They get an hourly rate of \$7.50 plus a percent of the gross proceeds. They use this formula to calculate their wages.

$$w = 7.5h + 2\%g$$

Taja worked 25 hours this week and the gross proceeds for the Palace are \$15,780. The Manager only gets paid by the hour. She works 40 hours a week for \$16.50 an hour. Who made more this week?

